MEBS6006 Environmental Services I

http://www.hku.hk/bse/MEBS6006/

Summary of Teaching (Dr. Sam C. M. Hui)

- 1. Introduction
- 1.1 Course Background
- 1.2 What is Environmental Services
- 1.3 Air Conditioning

2. Advanced Psychrometry

- 2.1 Review of Basic Psychrometry
- 2.2 Practical Applications of Psychrometry
- 2.3 Techniques of Psychrometric Analysis

3. Thermal Comfort

- 3.1 What is Thermal Comfort?
- 3.2 Thermal Environment and Heat Balance
- 3.3 Comfort Equation and Prediction
- 3.4 Influencing Factors
- 3.5 Environmental Indices
- 3.6 Local Thermal Discomfort
- 3.7 Thermal Comfort Measurements
- 3.8 Thermal Comfort Software Tool (from
- ASHRAE/UC Berkeley)

- 4. Load Estimation
- 4.1 Basic Concepts
- 4.2 Outdoor Design Conditions
- 4.3 Indoor Design Conditions
- 4.4 Cooling Load Components
- 4.5 Cooling Load Principles
- 4.6 Cooling Coil Load
- 4.7 Heating Load

5. Energy Calculations

- 5.1 Objectives between load calculation vs energy calculation
- 5.2 Calculation Methodology
- 5.3 Energy Calculation Methods
- 5.4 Building Energy Simulation

Concept Map:

